



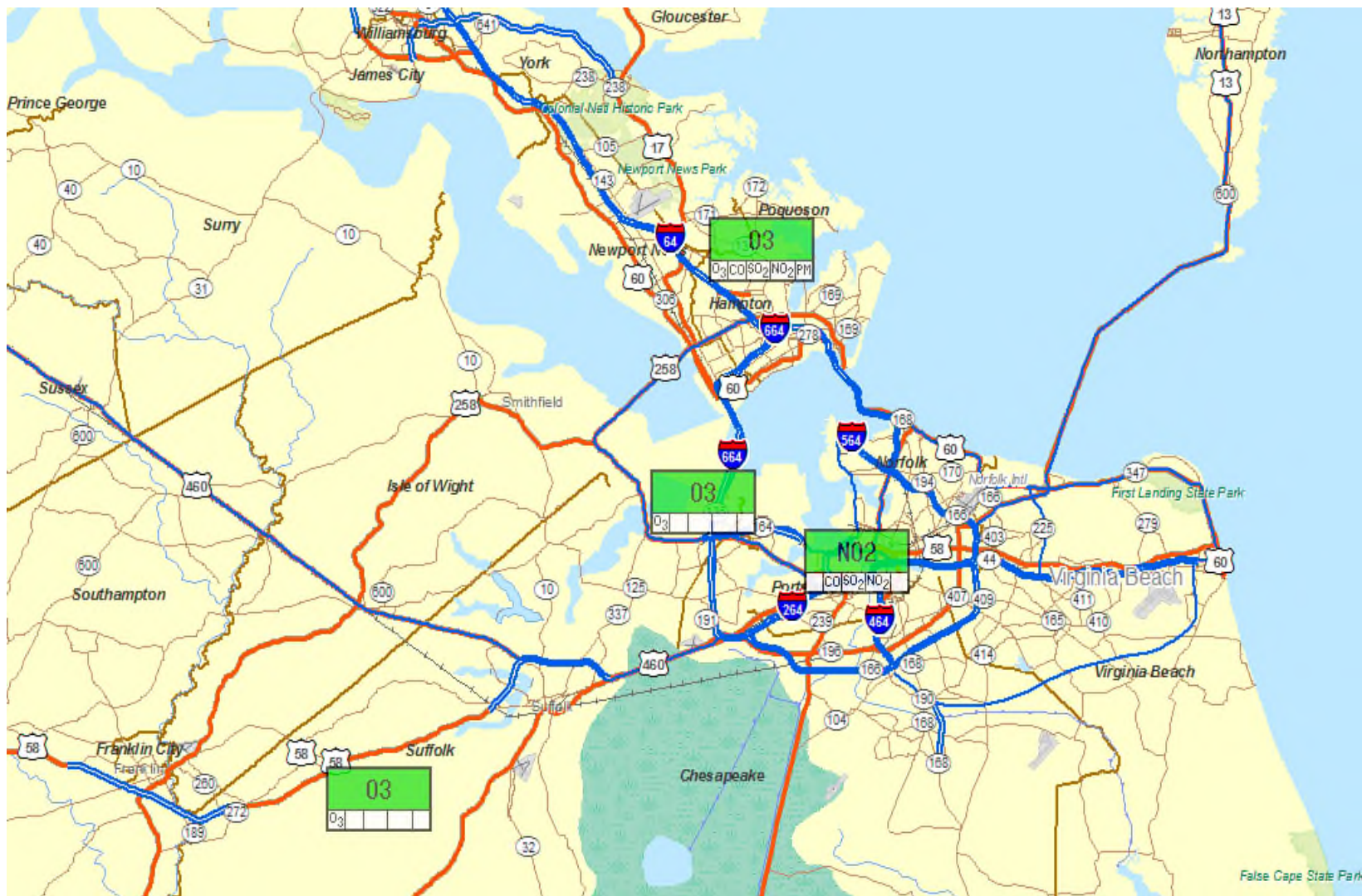
View of NOAA Monitoring site, Front Street, Norfolk VA
Air Quality Monitoring Norfolk VA

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Current NOAA air monitoring site is 2.1 – 2.2 miles from NS Site



Web site map of Tidewater continuous air monitoring sites
(Virginia Beach Site not shown)

Air Quality Information for the Tidewater Area – PM2.5

PM2.5 is particulate matter (PM) that is less than or equal to 2.5 micrometers (a micrometer is one millionth of a meter) in aerodynamic diameter.

2011-2013 PM2.5 24-hour Averages, 98th Percentile Values (µg/m ³ , LC)				
Site	2011	2012	2013	3-Year Average
(179-K) Hampton	25.0	20.9	15.9	21
(181-A1) Norfolk	24.7	21.7	15.8	21
(184-J) Va. Beach	25.6	22.7	18.0	22

24-Hour concentration – the 3 year average of the 98th percentile of 24-hour concentrations must not exceed 35 µg/m³.

Air Quality Information for the Tidewater Area – PM2.5

PM2.5 is particulate matter (PM) that is less than or equal to 2.5 micrometers (a micrometer is one millionth of a meter) in aerodynamic diameter.

2011-2013 PM2.5 Weighted Annual Arithmetic Means ($\mu\text{g}/\text{m}^3$, LC)				
Site	2011	2012	2013	3-Year Average
(179-K) Hampton	8.8	7.7	7.1	7.9
(181-A1) Norfolk	10.5	8.1	7.5	8.7
(184-J) Va. Beach	9.6	8.2	7.7	8.5

Annual Arithmetic Mean – the 3 year average of the weighted annual mean PM2.5 concentration must not exceed 12.0 $\mu\text{g}/\text{m}^3$.

Air Quality Information for the Tidewater Area – PM₁₀

PM₁₀ is particulate matter comprised of solid particles or liquid droplets with an aerodynamic diameter of less than or equal to 10 micrometers, and is sometimes referred to as “coarse particles.”

2011 – 2013 PM ₁₀ 24-Hour Average Concentrations (units in µg/m ³)							
Site	2011		2012		2013		>150 µg/m ³
	1 st Max	2 nd Max	1 st Max	2 nd Max	1 st Max	2 nd Max	
(179-C) Hampton	67	35	34	32	22	19	0
(181-A1) Norfolk	71*	58*	35	32	29	21	0

* Dismal Swamp Wildfire, August 2011.

Primary Standard for PM₁₀

24-hour concentration not to exceed 150 µg/m³ more than once per year averaged over three years. An exceedance means a 24-hour average value that is above the level of the 24-hour standard after rounding to the nearest 10 µg/m³.

Air Quality Information for the Tidewater Area – Carbon Monoxide (CO)

Carbon monoxide (CO) is a colorless, odorless gas that is produced by incomplete burning of carbon compounds in fossil fuels (gasoline, natural gas, coal, oil, etc.).

Site	2013			
	1-Hour Avg. (ppm)		8-Hour Avg. (ppm)	
	1 st Max.	2 nd Max.	1 st Max.	2 nd Max.
(179-C) Hampton	1.2	1.1	.9	.9
(181-A1) Norfolk	2.1	2.0	1.5	1.1

Primary Standard for CO:

- 8-hour average not to exceed 9 ppm (10 mg/m³) more than once per year.
- 1-hour average not to exceed 35 ppm (40 mg/m³) more than once per year.

Air Quality Information for the Tidewater Area – Sulfur Dioxide (SO₂)

Sulfur Dioxide (SO₂) is a colorless gas that has a strong odor. It results from burning of fuels containing sulfur (such as coal and oil), petroleum refining, and smelting (extracting metals from ore), and it also occurs naturally from volcanic eruptions.

Sulfur Dioxide 99 th percentile 1-hour Daily Maximum Values (ppb)					
Site ID	City/County	2011	2012	2013	3-Yr Avg Design Value 2011-2013
(179-K)	Hampton	39	33	38	37
(181-A1)	Norfolk	54	56	52	54

Primary Standard for SO₂:

- 3-year average of the 99th percentile 1-hour daily maximum values not to exceed 75 ppb.

Air Quality Information for the Tidewater Area – Nitrogen Dioxide (NO₂)

Nitrogen Dioxide (NO₂) is one in a group of gases referred to as oxides of nitrogen (NOX). Nitrogen dioxide, which is characterized by a reddish-brown color and pungent odor, along with the other NOX gases, results from high-temperature burning of fossil fuels in automobiles, power plants, and other industrial, commercial, and residential sources.

Nitrogen Dioxide 98th Percentile 1-Hour Daily Maximum Values (ppb)				
Site	2011	2012	2013	3-YR Avg. Design Value 2011 - 2013
(179-K) Hampton	31	28	28	29
(181-A1) Norfolk	43	41	41	42

Primary Standard for NO₂:

- 3-year average of the 98th percentile 1-hour daily maximum values not to exceed 100 ppb.

Questions?